

Contents

Page

- 1 **SHIRAIWA Takayuki**
Preface
- 3 **SHIRAIWA Takayuki**
Synthesis
Final report of the Amur Okhotsk project 2005-2009
- 21 **OHSIMA Kay I., NAKANOWATARI T., NIHASHI S., NISHIOKA J.,
NAKATSUKA T. and WAKATSUCHI M.**
Group Report 1
Impact of sea ice production and its recent reduction on overturning and material
circulation in the Okhotsk Sea and North Pacific
- 31 **NAKATSUKA T., NISHIOKA J., SUZUKI K. and All members of Group 2**
Group Report 2
Iron transport processes and their impacts on primary productivity in the Sea of
Okhotsk
- 41 **NAGAO S., TERASHIMA M., SEKI O., TAKATA H., KAWAHIGASHI M., KODAMA
H., KIM V.I., SHESTERKIN V. P., LEVSHINA S. I. and MAKINOV A. N.**
Group Report 3
Biogeochemical behavior of iron in the lower Amur River and Amur-Liman
- 51 **YOH M., SHIBATA H., ONISHI T., KAWAHIGASHI M., GUO Y., OHJI B.,
YAMAGATA K., SHAMOV V. V., LEVSHINA S. I., NOVOROTSKAYA A.,
MATYUSHKINA L., YAN B., WANG D., PAN X., ZHANG B., CHEN X., HUANG B.,
CHI G., SHI Y., SHI F., XU X., ZHANG K., CAI T. and SHENG H.**
Group Report 4
Iron dynamics in terrestrial ecosystems in the Amur River basin
- 63 **KAKIZAWA H., PARK H., SAKASHITA A. and YAMANE M.**
Group Report 5
Analyses on underlying causes behind Land-use / Land-cover changes

Contents

Page

- 71 **HARUYAMA S., KONDOH A. , YAMAGATA K., MUROOKA M. and MASUDA Y.**
 Group Report 6
 Land use and land cover change study
- 75 **MATOKA S., MINAMI H., NISHIOKA J., ONO T., NOMURA M., NARITA Y.,
UEMATSU M., MURAVYEV Y. D. and SHIRAIWA T.**
 Group Report 7
 Spatial distribution of air-borne Fe deposition into the northern North Pacific
- 83 **ONISHI T., TACHIBANA Y., KUBOTA J. and TAKAHARA H.**
 Group Report 8
 Natural variability of the hydro-metrological and hydro-chemical conditions
- 85 **MITSUDERA F., UCHIMOTO K., NAKAMURA T., NISHIOKA J., KISHI M. J.,
OKUNISHI T., ONO Y., YAMASHITA T., TSUMUNE D., MISUMI K. and
MATSUDA H.**
 Group Report 9
 Modeling intermediate water and iron in the Sea of Okhotsk and the northern
 North Pacific
- 87 **HANAMATSU Y., HORIGUCHI T. and ENDO T.**
 Group Report 10
 The legal, political situations and a future conservation strategy of the giant
 fish-breeding forest
 —Appendix 1—
 Agenda Statement for the Conservation of the Amur-Okhotsk Ecosystem
 —Appendix 2—
 Joint Declaration by Researchers toward the Environmental Conservation of
 the Sea of Okhotsk and Surrounding Regions

Contents

Page

- 117 **MAKHINOV Alexei N.**
Natural factors of Amur runoff and sediment deposit formation
- 123 **IVANOVA Elena G.**
Experience of joint Russian - Chinese monitoring of water quality in the transboundary water objects
- 129 **KIM Vladimir. I.**
Hydrological regime of the Amur River and changes caused by economic activities
- 139 **KIM V. I., KOZLOVSKY V. B., MAKHINOV A. N., SHESTERKIN V. P., KUZNETSOV A. M. , RYZHOV D. A., NAGAO S., SEKI O. and KAWAHIGASHI M.**
Dynamics of water turbidity in the Amur lower reaches and the Amur Liman
- 147 **SHESTERKIN Vladimir.P.**
Multiyear dynamics of nitrogen mineral forms in Amur water near Khabarovsk
- 151 **KONDRATYEVA Lyubov M.**
Biogeochemical factors of water quality formation in the Amur Liman
- 163 **LEVSHINA Svetlana I.**
Organic matter and iron geochemical migration in Amur River waters
- 169 **KULAKOV Valery V.**
Geochemistry of fresh ground water of Artesian basins in the Russian part of Priamurye
- 175 **KULAKOV Valery V.**
Geochemistry and sources of thermal water content in the Russian part of the Amur basin
- 183 **YAN B. , ZHANG B., YOH M. and PAN X.**
Concentration and species of dissolved iron in waters in Sanjiang plain, China

Contents

Page

- 195 **CHEN X., CHI G., HUANG B., KAWAHIGASHI M., SHI Y. and YOH M.**
 Impacts of reclamation on distribution and transport of iron in soils of Sanjiang
 plain, northeast China
- 203 **XU X. , ZHANG K., CAI T., SHENG H. and SHIBATA H.**
 Iron dynamics in forest ecosystems: effects of topography and vegetation type
- 213 **ONISHI T., SHIBATA H., YOH M., NAGAO S., PARK H. and SHAMOV V.V.**
 Evaluation of land cover change impacts on dissolved iron flux of the Amur River
- 225 **SHMAKIN Andrey B.**
 Weather conditions suitable for spring floods in north Eurasia and their frequency
 during the last decades
- 235 **ZHANG B., LIU W., WANG Z. and SONG K.**
 Land use change of Sanjiang plain--the middle reach of the Amur River basin in
 China after 2000 year
- 243 **MUROOKA M., HARUYAMA S., YAMAGATA K. and KUWAHARA Y.**
 The wetland distributions of the Kiya river using remote sensing
- 251 **GANZEY S. S., ERMOSHIN V. V. and. MISHINA N. V.**
 The landscape changes after 1930 using two kinds of land use maps (1930 and
 2000)
- 263 **ERMOSHIN V. V. and GANZEY S.S.**
 GIS creation of Amur River basin for land-use management: results and
 prospects (Amur River basin: Russia, China, Mongolia)
- 273 **MISHINA N. V.**
 Foreign trade relations between Russia, China and Japan as factor of Land
 use/cover changes in the Amur River basin

Contents

Page

- 283 **PARK H. and SAKASHITA A.**
Characteristic of agricultural development on Sanjiang plain, China
-from a macro aspect of the paddy fields development of state farm-(in Japanese)
朴紅・坂下明彦
中国三江平原における農業開発の特質
—国有農場の水田開発に着目して—
- 291 **YAMANE Masanobu**
Temporal and spatial dynamics of human impacts on forest resources in the Amur
River basin after the mid-twentieth century
- 311 **VORONOV Boris. A.**
Ecological state of the Amur River
- 315 **BAKLANOV P. Ya. and VORONOV B. A.**
Threats and risks to sustainable development in the Amur River basin